

The diagram consists of two horizontal rows of rectangles. The top row contains 10 empty rectangles. A dashed line is positioned below the 5th rectangle of the top row and extends to the right. Below the dashed line is a second row of 10 empty rectangles.

A horizontal line consisting of 20 empty square boxes, intended for a child to practice writing a name.

自然誌 Nature Magazine AlphaGo Zero paper [1]

四、填空题

A decorative horizontal bar consisting of a series of small, evenly spaced rectangular blocks, likely made of wood or a similar material, arranged in a repeating pattern.

talent pool

人才庫 talent pool

Karl Raimund Popper

A horizontal row of 15 empty rectangular boxes, likely for writing names or responses on a form.

STEM Science, technology, engineering and mathematics

A decorative horizontal bar consisting of a series of small, evenly spaced rectangles, resembling a grid of 1x1 cells.

ANSWER

AlphaGo

Deepmind 2019 [2] 2019

AlphaGo Master 三星棋院AlphaGo Master三星棋院AlphaGo Master 三星棋院
三星棋院AlphaGo Master三星棋院

1. Nature Magazime に登場した AlphaGo と Deepmind の対決 AlphaGo Zero と AlphaGo Master の対決

2) AlphaGo Zero یعنی AlphaGo Zero local trap را در میان اینها می‌دانیم. AlphaGo Zero یعنی AlphaGo AlphaGo Zero یعنی AlphaGo AlphaGo Zero یعنی AlphaGo

AlphaGo Zero [4] game

Superhuman გამარჯვების მიზნით Clock გამოიიყენებოდა IBM S/360 მარტინის მიზნით და მას შემდეგ AlphaGo Zero და superhuman გამოიიყენებოდა IBM S/360 მარტინის მიზნით და მას შემდეგ AlphaGo Zero გამოიიყენებოდა Nature Magazine გარებაში AlphaGo Zero paper გამოიიყენებოდა superhuman გამოიიყენებოდა და მას შემდეგ AlphaGo Zero და superhuman გამოიიყენებოდა

超人級人工智能 Technological Singularity
Demis Hassabis AlphaGo

AlphaGo Zero AlphaGo Zero superhuman [7] superhuman superhuman superhuman deep-learning reinforcement superhuman superhuman

AlphaGo Zero と AlphaGo Master の対戦結果は以下の通りです。
AlphaGo Master が superhuman と対戦した際の成績は、AlphaGo Master が 60 勝 37敗 3 分引き分けでした。
AlphaGo Master が superhuman と対戦した際の成績は、AlphaGo Master が 3 勝 3 分引き分けでした。
AlphaGo Zero が superhuman と対戦した際の成績は、superhuman [8] が 8 勝 0 分引き分けでした。

圍棋 AlphaGo 機器人 Turing Machine 人工智能 deep-learning 人工智能 AlphaGo 人工智能
圍棋 AlphaGo 機器人 Deepmind 人工智能 AlphaGo Zero AlphaGo Master AlphaGo Zero AlphaGo Zero 人工智能
圍棋 AlphaGo

Deep-learning 信用評定のための学習アルゴリズム credit reinforcement learning credit reinforcement local trap

ideas are cheap idea cheap reinforcement [9]

leukotomy reinforcement peer review Socratic method peer review Socratic method peer review

AlphaGo は、強化学習による学習を実現した棋士である。

图灵机 Turing Machine 图灵完备性 Turing completeness
图灵机 Turing Machine 本地陷阱 local trap 全局逼近 Universal approximation
...

Socratic method Superhuman Superhuman

Alan Turing Geoffrey Hinton Demis Hassabis AlphaGo

Alan Turing Geoffrey Hinton Demis Hassabis AlphaGo

Demis Hassabis AlphaGo [12] Geoffrey Hinton

Turing Machine Turing Machine Geoffrey Hinton Turing Machine Alan Turing

Dialogue Concerning the Two Chief World Systems [13] Socratic method

Dialogue Concerning the Two Chief World Systems [14] The Sceptical of Chemist On the Origin of Species

The Sceptical of Chemist On the Origin of Species [15]

Leukotomy BRAIN Initiative

Leukotomy BRAIN Initiative

Leukotomy BRAIN Initiative

Leukotomy BRAIN Initiative

Leukotomy BRAIN Initiative

1 personalities mental diseases personalities BRAIN Initiative project

2 leukotomy Leukotomy BRAIN Initiative AlphaGo

3 personality intelligence Walter Freeman personality intelligence

BRAIN Initiative project NIH BRAIN 2025 Report “there is general agreement that types can be defined provisionally by invariant and generally intrinsic properties” invariant agreement insights “envision an integrated, systematic census of neuronal and glial cell types” dynamic brain mapping “Link brain activity to behavior” “Produce conceptual foundations for understanding the biological basis of mental processes” mental processes behavior

BRAIN Initiative project personality intelligence brain mapping personality intelligence hidden assumptions

personality intelligence

BRAIN Initiative project brain mapping mental diseases personality intelligence personality intelligence leukotomy

leukotomy AlphaGo

personality intelligence mental diseases

BRAIN Initiative brain mapping human level intelligence personalities intelligence mental diseases BRAIN Initiative neurosciences AlphaGo generic human intelligence AlphaGo neurosciences [16]

AlphaGo

AlphaGo Master AlphaGo Zero AlphaGo Zero AlphaGo Zero AlphaGo AlphaGo Master AlphaGo Master AlphaGo AlphaGo

AlphaGo

Technological Singularity BRAIN Initiative project Technological Singularity baseless

AlphaGo Zero achieved superhuman performance Demis Hassabis AlphaGo

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[1]

[2] 『Cracking Go』 Deep Blue AlphaGo AlphaGo

[3] <http://www.alphago-games.com/> AlphaGo Zero AlphaGo Zero 2017-05-29
https://www.101weiqi.com/chessbook/player/38348/

疯狂石头 vs AlphaGo

AlphaGo چیست؟ Google چیست؟ AlphaGo Zero چیست؟ AlphaGo چیست؟ Human level artificial intelligence چیست؟ AlphaGo چیست؟

Google/Deepmind AlphaGo چیست؟

[5] 未来社会の超人化が進むと、超人化した人間が超人化したAlpha [6] など

Deepmind Alpha Nature Magazine Alpha

1976 1976

AlphaGo

1976

[7] <http://www.alphago-games.com/> Full Strength of Alphago Zero, i.e. Final Form
40 Blocks 20 Blocks Not Full Strength of Alphago Zero
Alphago Zero Alphago Zero superhuman

[8]

[10] 『游戏』：“Go gaming is strictly defined within a very small space. Industrial automations are typically designed in well controlled environments, but not strictly defined. Car driving is regulated, but the environment is not well controlled”『游戏』『工业』『驾驶』

[13] Dialogue Concerning the Two Chief Word Systems Socratic Method

『AlphaGo』
『AlphaGo』

『AlphaGo』
『AlphaGo』AlphaGo

『AlphaGo』

[14] 『AlphaGo』AlphaGo
『AlphaGo』

『AlphaGo』
BRAIN Initiative project
『AlphaGo』

『AlphaGo』
『AlphaGo』

[15] Leukotomy
BRAIN Initiative project
BRAIN Initiative

[16] 『AlphaGo』
『AlphaGo』AlphaGo